



Instagram



# THE SIGNAL

*Newsletter of the Bella Vista Radio Club*



**VOL. 1, NO. 12 – MARCH 2019**

Monthly Meetings: 1<sup>st</sup> Thursdays @ 7 p.m., Highland Christian Church, 1500 Forest Hills Blvd, Bella Vista  
Club Call: N5BVA • Repeater: 147.255 +offset, pl 162.2 • Website: [www.bellavistaradioclub.org](http://www.bellavistaradioclub.org)

**WEEKLY NETS:**

3820 kHz Roundtable - Sundays @ 4 pm

147.255 Repeater Net - Wednesdays @ 8 pm

Wide Area Net - Wednesdays @ 9 pm on the N5KWL NWA Linked Repeater System

## IN THIS ISSUE:

- \* February Meeting story
- \* Rogers Radio Shack
- \* Member Spotlight – KF5ZIM
- \* BVRC Video Project Update
- \* HAM-101 Series – “Trimming your dipole antenna”
- \* NEW Wide Area Net
- \* A Visit With N5KWL
- \* Bumps In The Road
- \* BVRC Video Update



# FROM THE DESK OF THE PRESIDENT

**Glenn – WB5L**

If you are fans of “Star Trek-The Next Generation”, the television series that followed the original Star Trek series and debuted in 1987 and have always had the uncanny ability to predict and define popular culture, then you remember the popular Captain Picard’s phrase “ENGAGE”. I love the analogy. We want to arrest your attention here, captivate you, and draw you towards participating and becoming involved in the best radio club in the region! Often, as leaders, we are encouraged to engage our team and connect with them to learn more about what’s going on. Rarely do we get to ask the team to engage with us. However, “us ham operators” know about two-way communications. The Bella Vista Radio Club is defining an amateur radio club, the next generation! We are working on several projects that we hope not only advocates the hobby but delivers value. The

HAM-101 project is one example. Nothing like it has been done before. As we solidify the future of our hobby, and Ham Radio in general, we are going to entreat you for your engagement. We cannot

needs unless you information. Hopefully to know you better. -----

sign – N5BVA – will be

upcoming Arkansas QSO Party. N5BVA will be a “BONUS” station that everyone will need and want for those bonus points. We will need participation from the club members to plan host a bonus station or multiple stations. ----- Field Day will require lots

of work and planning. There is not much need to appoint committee chairmen if the chairmen cannot attract people who want to engage. It’s “highly illogical” to sustain such

a club without your engagement. New technology now renders the elusive “eyeball QSO”

almost obsolete. People are communicating 24/7 every day around the world using the

internet. We no longer must wait for the “snail-mail” to deliver the QSL card. Expect the

Board members to begin using video conferencing technology to hold board meetings

electronically, open to everyone. “Beam me up, Scotty”! Of course, all this fun would not

be possible but for the ham radio hobby, the very folks who invented communications as

we know it today. So please, make a resolution to be a part of the future of amateur

radio. Don’t just sit on your status-quo. We need you to “boldly go where no man has gone

before”. As we become the *next generation radio club*, seize the opportunity to help model

this club into the future. May we all “Live long and prosper”.



know your interests and volunteer that valuable along the way, we will get

----- The Club’s callsign put to the test in the



# FEBRUARY BVRC PROGRAM FEATURES FB PRESENTATION ON GROUNDING

Mother Nature provided BVRC with snow flurries, and a cold temperature topped-off with a very cold wind chill for the February 2019 meeting. But that didn't deter 42 members and guests from attending a very fine program by BVRC's own Rick Pope – KG5MGW. The program was entitled "What's All The Buzz About Grounding?" Rick is a certified electrician, who has attended Long Island University in NYC and the University of Colorado. He owns his own electrical business and is currently on staff at the University of Arkansas, where he is very involved with ARCUA, the Amateur Radio Club of the University of Arkansas. Rick is very interested in amateur radio, as well as helping and mentoring many hams in the area. He is a member of 5 NW Arkansas radio clubs.



Rick first explained how he grounded his vertical antenna system. He stated that the big rule in grounding is to make sure all the equipment that you connect to an RF ground is grounded to a common ground point. Then, the next step is to ensure that you are then again grounded to the common ground of your home domicile. He said it's ok to ground to electrical pipe/conduit when needed, but gas pipe (black pipe) is taboo – do not use gas pipe. Rick then discussed his trouble-shooting adventures at the various Sonic Drive-Ins that he services all over NW Arkansas and surrounding areas. He then described grounding principles concerning radio antennas and towers.



Concerning the gear within your shack itself, Rick explained that each individual equipment unit should be grounded to a main ground wire, strap, or bar which is then connected to the main ground line going, that then goes to house ground. Inside the shack, all equipment needs to be grounded separately to the main indoor ground point. Never "daisy chain" your ground wires. Rick then discussed grounding of antennas and towers.

Great program, Rick! Very informative and enlightening. We appreciate you giving a really good presentation, and we also thank you for the help you have rendered to many of us (editor included)! Thank you very much!

**BVRC President Glenn – WB5L presents Rick Pope – KG5MWG the BVRC Certificate of Appreciation.**





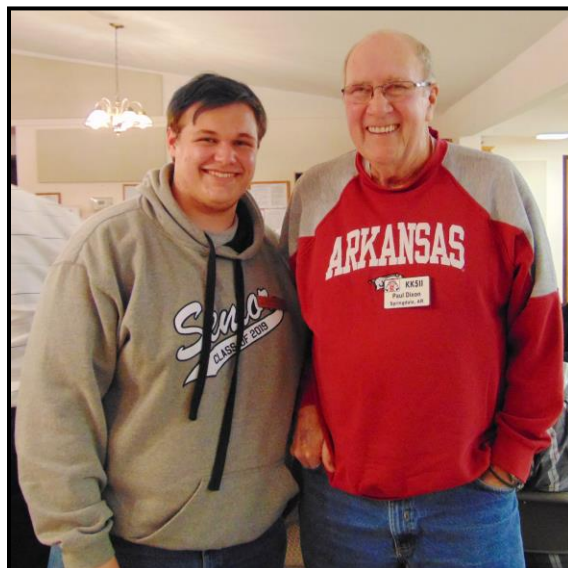


## Strays from the BVRC February Meeting.....

BVRC had a special guest at our past meeting – We were honored to have attending with us Jon Williams – K5DVT. He braved the elements for the 1 hour & 15-minute drive from Huntsville! It was also thrilling to see one of our area young people present, who has REALLY taken hold of amateur radio. Jon originally was KF5OQE, until he inherited his callsign as a vanity call from his beloved grandfather “Smitty”. Jon has just recently been appointed ARRL Delta Division Associate Director for youth. Congratulations Jon!



How's this for a contrasting photo of one of our most senior--and youngest--at the Feb meeting. Hank Kress – K8KBW (Rogers), has been a ham since 1948 and still going strong at 96 years young, having an eyeball QSO with Jon – K5DVT. Jon is 17, licensed since age 11, and graduates high school in May. Such contrasts demonstrate why we often say Amateur Radio is a “Hobby for Life!”



Jon also had reunion eyeball QSO with Paul Dixon – KK5II during the Feb. meeting. Paul was one of the VEs that administered Jon's Technician Class exam when he was first licensed in 2012. Paul almost didn't know him, as he has *quite* grown up (hi, hi).

Another exciting development at our February meeting, was the appointment of Sheila Katz as the new BVRC Social Media Coordinator. Sheila is the XYL of Alan – KEØQFO, who is one of our fine Net Control Stations for the BVRC Wednesday night 2-mtr net. She is currently studying for her Technician class exam, so another new BVRC member callsign is coming soon! *Congratulations* Sheila, and thanks for stepping forward to help in this very important club position!



**B V R C Officers:****PRESIDENT****Glenn Kilpatrick – WB5L****VICE – PRESIDENT****Chris Deibler – KG5SZQ****SECRETARY****Wayne Patton – K5UNX****TREASURER****Marc Whittlesey – WøKYZ****TECHNICAL OFFICER****Steve Werner – K5SAW****REPEATER / CLUB CALL TRUSTEE****Fred Lemley – K5QBX****Appointed Positions:****PUBLIC INFORMATION OFFICER****MEMBERSHIP COORDINATOR****Ron Evans – K5XK****EMERGENCY COMMUNICATIONS****Chuck Healy – WøCEH****Lorrie Healy – N1RNI****HAM 101****Gregg Doty – KF5ZIM****V E TESTING****Glenn Kilpatrick – WB5L****2-METER NET COORDINATOR****Chris Diebler – KG5SZQ****SOCIAL MEDIA COORDINATOR****Sheila Katz****NEWSLETTER EDITOR****Don Banta – K5DB****NEXT BVRC MONTHLY MEETING**

**THURSDAY - MARCH 7, 2019  
HIGHLAND CHRISTIAN CHURCH  
1500 FOREST HILLS BLVD.  
BELLA VISTA, AR**

**MARCH PROGRAM:*****The NASA******Apollo Program***

Our presenter for the March program will be Larry Haug. After serving in the USAF, Larry went to work for NASA where he was part of the team that landed man on the moon. Larry worked at a communications facility in Spain, that supported the launches and helped provide around the world communication capabilities. From inception to moon landing, Larry will talk about the program including communications to and from the vehicles.  
**DON'T MISS IT!!! SEE YOU THERE!!!**



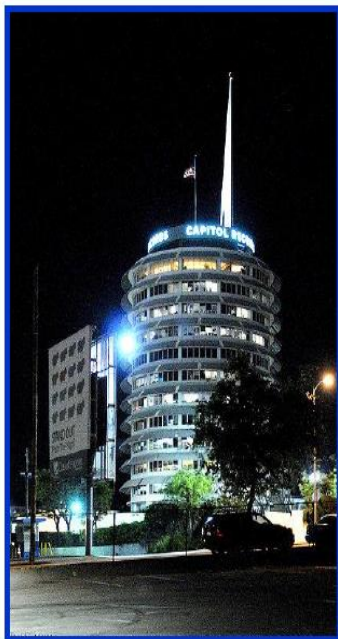


## BVRC CLUB accessories!

*Show you're a proud BVRC member with:*

- Key Tags
- Desk Name Plates
- Badges
- White & US Flag License Plates
- Mouse pads
- Ceramic Mugs

To order your personalized club product, click [here](#) !



## CQ HOLLYWOOD?

The Capitol Records Tower, located in Hollywood, was built in 1956, and resembles a stack of records on a turntable.

For years, the red beacon atop the famous building has spelled-out the word "Hollywood" in Morse code.

## ROGERS RADIO SHACK



*From Ron – K5XK*

Yes, the rumors circulating on the BVRC repeater are true. By the time BVRC members read this, and after serving the electronics needs of Benton Countians for almost a half-century, the Rogers Radio Shack at 917 W. Walnut, will be closed. The store had been owned and operated by the Vaughn family since 1973. Stan Stockton – K5GO advises us that NW Arkansas still has two Radio Shack stores: The Fayetteville store and the Siloam Springs store owned and operated by Mike Hayes.

The Vaughns opened the North College store in Fayetteville in 1971, and quickly expanded into Springdale, Rogers, Bentonville, and the Northwest Arkansas Mall. The patriarch's daughter, Avis & her husband Ken Ruge, have managed the Rogers location for many years, and are friends to many area hams in NW Arkansas and SW Missouri.

Avis admits that the Rogers store is a victim of increasing lost sales to online/internet sources. She and husband Ken plan to retire and will consolidate their inventory with their sole remaining store at 1702 N. College, in Fayetteville. The Fayetteville Radio Shack is owned and operated by Avis' brother, Craig Vaughn, who with his electronics engineering background, is knowledgeable in 'all things electronics,' and invites all area hams to rely on the Fayetteville location as their 'go-to resource.'

The Rogers store officially closed on Feb. 15.





This month, The Signal pays tribute to one of BVRC's most dedicated members, and also our new HAM-101 Coordinator, Gregg Doty – KF5ZIM.

Gregg and his XYL of 53 years, Lynda, own and operate Lynda's Nuts, a roasted nut manufacturer of a variety of nuts and chocolate coated items for the wholesale and retail market. They are the parents of Terry and Brian – KD8VSD. Gregg is also your go-to man for any BVRC accessories from name badges to license plates!

Gregg acquired his first license, passing both the Technician and General Class exams in the same sitting, in 2013 and was assigned the call KF5ZIM.

When asked what caused him to become interested in amateur radio Gregg told us, "In the early 1980's we had a guy that worked with us that was a ham and he introduced me to the hobby. I was very interested but did not do anything toward the hobby at that time. Then in 2013 I received a package in the mail from my son Brian KD8VSD that contained a Radio Shack HTX-10, a 10-meter dipole antenna, and a note saying he had entered the hobby. He had remembered that I used to talk about it a lot and thought I should get licensed so we could communicate (amazing what kids remember while growing up). I took him up on the idea and got my general in November of 2013."

Gregg said that he has been blessed with several elmers coming-up through the ham radio ranks – "I did not make much headway other than a very little 10-meter operation from 2013, until I went to a BVRC meeting in March 2017. I was not completely in the door when I was contacted by Ron – K5XK, and during the meeting met Harold – K5HJS and Steve – K5SAW who from that day to this, have all been an invaluable resource of information and help. Also, Fred – K5QBX has assisted all along the way with my tower project, and EmComm elmers Paul – KC7DQY and Mark – KL7IWT. Plus, being a member of ARRL and reading QST has been a great help."

When it comes to a particular interest, Gregg advised that over the last several years, he has been spending time listening to many other hams on and off the air, going to meetings and learning from presentations. At present he is focusing on Emergency Communications, CW, and 75-mtr / 2-mtr / 70cm operation. Some of the gear that Gregg's shack contains includes a Kenwood TS-570D w/ KT-100 Tuner, a Kenwood TM-V71A, and a Kenwood TM-281A. Gregg recently finished erecting a 70' fold-over tower. Some of his antennas include a Cushcraft 13B2 yagi, a Diamond X-300A vertical, and a Hygain TH-2 MK 3 HF yagi for HF work.

Gregg, thanks to folks such as you and Lynda! We are honored to have you in BVRC!



# BVRC VE REPORT

February 9, 2019



## Congratulations!



Christopher Hubbel – New Technician!  
Michael Rowe – New Technician!  
Dennis S. Branyan – New Tech & General!  
Jeffrey Newberry, KG5YJW – New General!  
Jerry Hamm, KG5CUT – New General!  
Jessie Costulas, KG5YJT – New Amateur Extra!

*Test sessions are conducted each 2nd Saturday of the month, 2 pm, at the Highland Christian Church in Bella Vista*

*Help promote the availability of the Club's monthly test sessions.  
Tell your friends and acquaintances!*



2019 Arkansas QSO Party Just Around The Corner! – May 11

Join in on the fun!!!

Get all the info you need at: [www.arkqp.com](http://www.arkqp.com)



## WELCOME

## NEW BVRC MEMBERS!

Jon Williams – K5DVT, Huntsville  
Tom Northfell – W5XNA, Fayetteville  
John Robinson – W5HB, Winslow  
Jeremy Walker – KCØSYN, Pineville MO  
Allan Fowler – KF5ROH, Eureka Springs  
Carol Fowler – KG5BJW, Eureka Springs



The first session of the new Wide Area Net convened on Wednesday evening, January 30, using the N5KWL linked repeater system, with very good results and participation. The geographical span of stations checking-in to the Net ranged from Siloam Springs in the west, to Berryville in the east, to Washburn MO in the north, and Winslow in the south.

19 check-ins were logged, and an interesting and informative time was experienced by all.

The N5KWL linked system that will be utilized for the Net has an exceptional coverage area. (See map below.)

This new Net is in the experimental stage at this time, as evaluations are being conducted as to level of interest for a new late evening net. The purpose of this new Net is to utilize the N5KWL Link System for amateur radio news and information, public service communications training, and to provide a new fellowship venue for current and prospective Bella Vista Area Radio Club members across the NW Arkansas, NE Oklahoma, and SW Missouri region. However, you do NOT have to be in a particular area or a BVRC member to participate. Any and all operators with a Technician class license or above are heartily welcomed to participate.

Wednesday evenings – 2100 (9pm local)

Pre-Net begins – 2045 (8:45pm local)

### **FREQUENCIES**

442.200 – Beaver Lake

442.950 – Bentonville

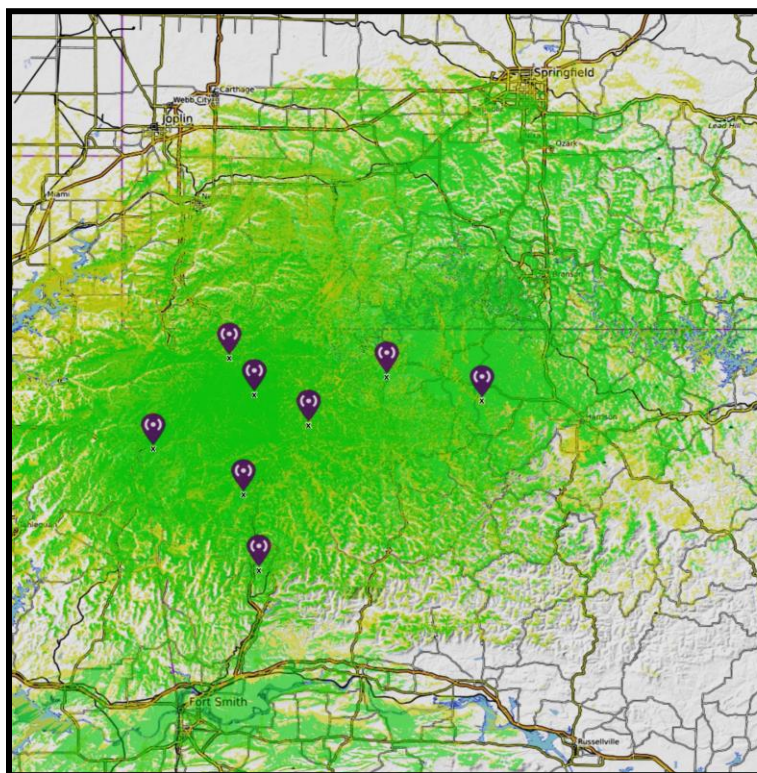
146.865 – Eureka Springs

442.700 – Green Forest

443.175 – Rogers (Mercy Hospital)

442.300 – Signal Hill (Near Winslow)

442.075 – Siloam Springs



N5KWL Linked Repeater System  
Coverage Area

*All repeaters have a PL tone of 97.4*



# HAM 101

## THE SIGNAL Monthly Column for New Hams

### “Trimming Your Dipole Antenna”

*Last month we christened this new SIGNAL column discussing dipole antennas, their characteristics, etc. As we promised in that premier article, this month we’re going to discuss how to properly “tweak” that antenna so that it can deliver its optimum performance for you.*

You’ve got that shiny new HF transceiver out of the box and on the shelf in your shack. You have a nice DC power supply ready to provide 13.8 volts. You’ve even got the rig components properly grounded! Now, what do you need to do with that dipole antenna to get on the air?

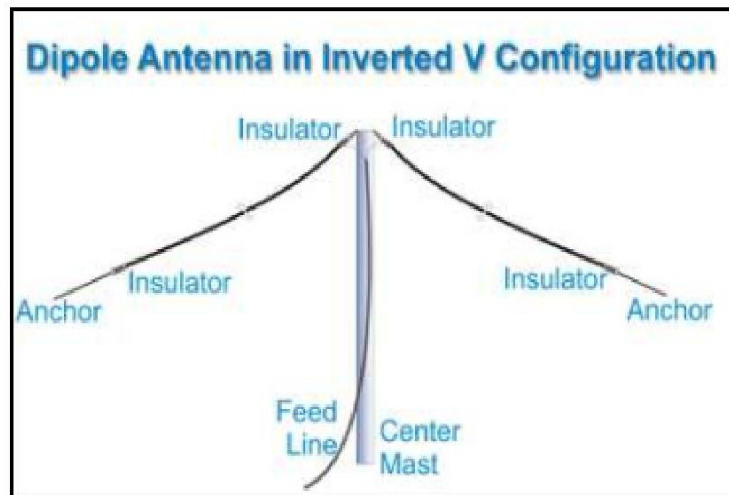
Erecting an antenna for HF operations is perhaps the most challenging aspect of establishing a basic HF station. The horizontal wire, half-wave dipole antenna is one of the simplest HF antennas to set up, it offers very good performance, and that makes it a very popular choice for many hams. Let’s see how trimming a dipole antenna, and following a few other guidelines, can make it glimmer like an RF gem!

To get the best performance from your dipole you’ll want to follow a few simple guidelines:

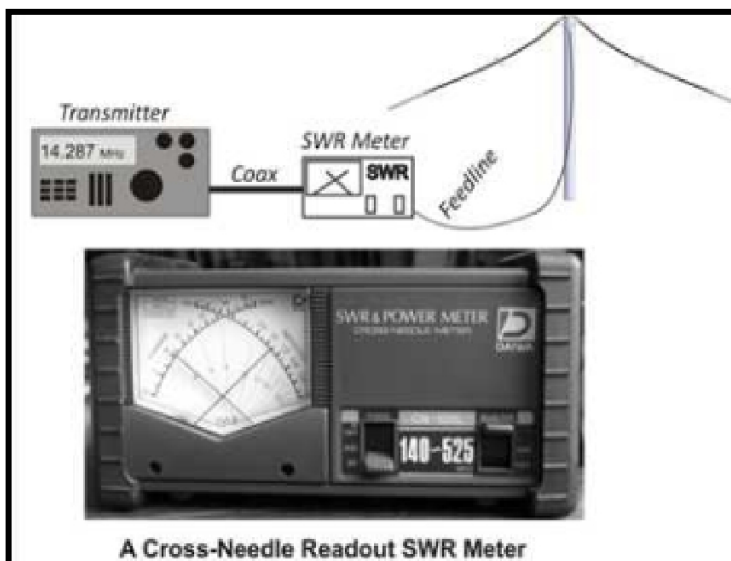
- Try to keep the dipole away from other conductors, especially long, linear ones like household rain gutters, or at least try to avoid aligning the dipole parallel with such conductors.
- A dipole will provide low take-off angles for good over-the-horizon skip propagation when it is approximately one-half wavelength above the ground. At lower heights the radiation pattern will become more vertically directed and more omnidirectional.
- The strongest signals radiate broadside to the antenna, or at right angles to the orientation of the dipole’s wire, and you may want to establish your dipole so that those strongest signals are pointed in desired propagation directions.
- Be sure to seal up any connectors that will be exposed to the elements to avoid water penetration into your coaxial feed line.
- Finally, trimming your dipole antenna for the band and frequency range you intend to operate on is critical!

Trimming a dipole antenna refers to the adjustment of antenna length to operating frequency. The total length of the dipole should be just under one-half wavelength for the operating band. When the dipole is properly trimmed for an operating frequency the antenna feed point will present an impedance that is closely matched to the feed line impedance. When feed line and antenna feed point impedances match, your antenna system will have effective power transfer and

will radiate efficiently. If the trim is poor for the operating frequency the impedances will not be well matched and some of your transmitter's power will be reflected back down the feed line instead of radiated as RF energy.



**SWR:** Nearly all antenna systems will have at least a little power reflection due to mild impedance mismatch at the antenna feed point. The standing wave ratio (SWR) is a comparison of the forward power in your antenna system with the reflected power. A low SWR indicates little power reflection and efficient power transfer to the antenna, while higher SWR values indicate greater reflection and less efficient power transfer. Generally, you should strive for a low SWR in your antenna system. You can judge the proper trim for your dipole by measuring the SWR as you adjust the antenna length.



**Measurement Instruments:** How do you measure SWR in your new dipole? You'll need a measurement instrument. Two very popular instruments for trimming a dipole antenna are the SWR meter and the antenna analyzer. These two instruments work differently, so let's briefly review the functioning of each.

The SWR meter is positioned into the feed line between the transmitter and antenna. Most hams will place the SWR meter into the feedline immediately after the transmitter so the readings are viewable in the shack while

transmitting. The SWR meter evaluates feed line voltages in the forward and reflected directions and displays the SWR computation for the operator. So, you have to actually transmit a signal for the SWR meter to take a reading, and you must read the SWR value during the transmission.



The antenna analyzer requires the feed line to be connected to it, but no connection to the transmitter is needed. The analyzer generates its own signals for the antenna system, computes SWR, and displays it to the user alongside frequency. It is very common for an antenna analyzer to allow the user to dial through a range of frequencies while observing the SWR readout. This way the user can watch for the SWR value to dip to a minimum value, and thereby see the precise frequency for which the antenna is currently trimmed.

**Step-by-Step:** With those measurement devices in mind, let's consider the big picture practical steps of trimming a dipole antenna:



- Determine the band and frequency range for which you desire the antenna trimmed. For example, you may want to trim a 20-meter band dipole for the General Class phone frequencies of 14.225 MHz to 14.350 MHz.
- Compute the approximate antenna length for the center frequency of the range for which you are trimming. In our example that would be a trim for about 14.287 MHz, or a dipole length of about 32.75 feet (32 feet, 9 inches).
- Cut the dipole wire to be a little longer than the computed length – it's easier to cut wire than to extend it! So, perhaps you would cut your 20-meter dipole length to be about 34 feet long, with each of the two segments at about 17 feet. ( $17 \times 2 = 34$ )
- If possible, erect the dipole into the desired position to make SWR measurements. You might accomplish this by anchoring the center point of the dipole in its intended elevated position, while using lengths of cord to temporarily “pull up” the ends near their intended permanent anchor points. The specific methods used will depend on your dipole configuration (flattop, inverted V, or sloper) and its height above ground, as well as the type of anchor points being used.
  - Note: Getting the dipole into its approximate operating position and height above ground will provide the most accurate SWR measurements, especially if other unavoidable conductors are within a wavelength of the dipole's operating position.
  - Use one of the measurement instruments to determine the frequency at which the lowest SWR is achieved. (See SWR Measurement Techniques that follow.)
  - Given the extra-long length of wire left on the dipole segments, the SWR should bottom out at a frequency below the desired operating frequency. In our example let's suppose you measured a minimum SWR of 1.2:1 at 14.100 MHz.



- To raise the frequency of minimum SWR, trim the antenna shorter. *Cut each of the dipole's segments by equal amounts so that the two halves maintain equivalent lengths.*
- If the minimum SWR is minimized at a higher frequency than desired, you must lengthen the wire segments. This is usually a very rare circumstance, but to avoid it you should trim carefully and trim often rather than taking only a couple of giant chunks of dipole length at once! Physically trim the wires shorter – lower the antenna ends to accomplish this if you erected the dipole near its operating position. You may trim in one of two ways: Either cut the wire or wrap the wire back along itself toward the center feed point. Be sure the wire is routed through the insulating anchor before wrapping, and you may wish to use a combination of cutting and wrapping to carefully trim into just the right frequency without having an excessive wire wrap.
- Reposition the dipole and make another SWR measurement to see what effect your trim has had. Likely you'll find the frequency of lowest SWR has been raised closer to your desired center point frequency, but not yet there.
- Repeat the trim action in small adjustments until you achieve lowest SWR near the desired frequency.

Once you have your antenna trimmed satisfactorily for your desired operations, tie it up permanently and get on the air! It's a good idea with dipoles to provide a little strain relief for the wire, and a little slack or droop in the wires will not impact performance significantly. Especially if you are using trees as anchor points, be sure to provide some slack and strain relief to avoid snapping a wire when the trees move around with wind. Some operators prefer to hang a weight over a pulley or over a tree limb with the cord attached to the horizontal dipole wire. When the tree moves the cord and weight will keep the wire taught without over-straining it.

**SWR Measurement Techniques:** Before we wrap up, let's chat about SWR measurement techniques. We'll start with the antenna analyzer, since it is usually more convenient than the SWR meter.

It is easy to dial across frequencies to find the lowest SWR with an analyzer. You can measure, adjust the trim, and measure again in quick cycles. However, you may want to plot an SWR curve rather than just identifying the lowest SWR frequency. The SWR will be lowest at just one frequency position, and it will rise gradually for frequencies above and below this center point. An SWR curve is typically a U-shaped or V-shaped curve with frequency plotted



horizontally and SWR plotted vertically. Such a curve tells you more about your dipole's performance across the frequency band on which you are operating. A common metric of antenna performance is *SWR bandwidth*, and this is often defined as the bandwidth for which the SWR is at a value of 2:1 or less. At SWR values greater than 2:1, most modern transmitters will begin to automatically reduce transmit power to avoid high power reflections returning into the transmitter circuits.

An SWR curve is pretty easy to plot with an antenna analyzer. Simply record the SWR readings every few thousand hertz as your dial across the frequencies with the analyzer. Then, plot the SWR values against frequency with graph paper or using a spreadsheet utility on a computer.

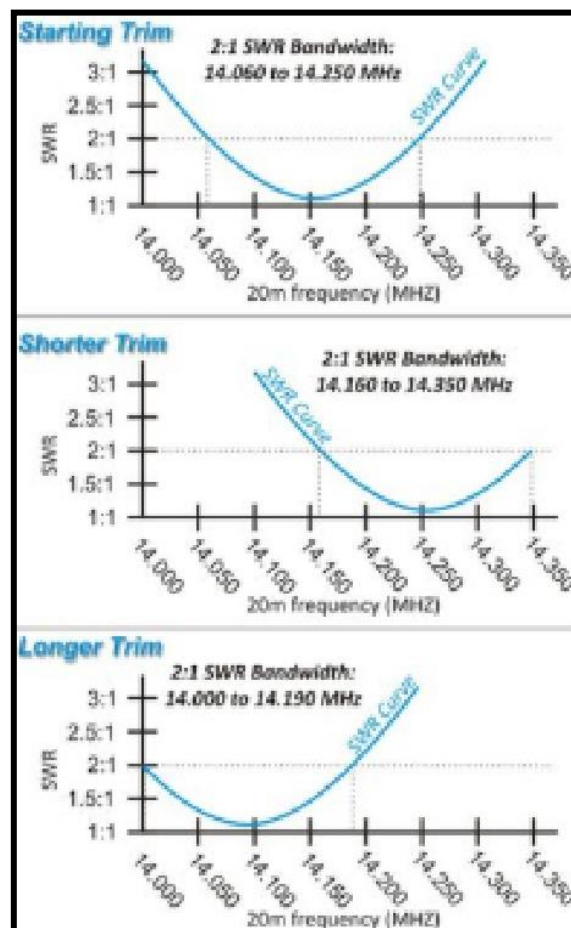
Plotting an SWR curve using an SWR meter requires slightly more effort. As noted, the SWR meter is read while transmitting with the meter inserted between the transmitter and the feed line/antenna system. You must change your transmitter frequency and take multiple SWR readings across the frequency band. Again, tune your transmitter in steps across the band and record the SWR readings with each transmission, and then plot your results as described above. Be sure that you do not transmit in sub-bands for which you do not have privileges! Stay within your license class sub-bands.

You can “move” your SWR curve up or down the frequency band by changing the length of your dipole.

Your performance with your dipole should be quite satisfactory within the 2:1 SWR bandwidth that you measure with these techniques, and with an antenna tuner you will probably get pretty good performance well outside of your 2:1 bandwidth!

**Multi-band Dipoles:** And remember, there are several different varieties of dipole antennas, some of which can help you get onto multiple bands with a single antenna and feed line. The fan dipole, or multi-element dipole, is a good choice for the amateur who wants to have access to three, four, or even more HF bands with a single antenna. The *trap dipole* offers similar multi-band performance.

Hopefully, these tips and guidelines will help you get off to a great start with a dipole antenna on the HF bands.



Good luck, and 73!



**From BVR C  
Membership Coordinator  
Ron – K5XK**

**WBØAUQ** – Bob and Rosalee are back early from the Rio Grande Valley due to the untimely death of their oldest son David, at age 50. Our heartfelt sympathies to the Rainbolts.

**KG5ZCI** – Bill is one of our few Washington County members able to easily reach the 147.255 Repeater. From his Porter Road QTH in east Fayetteville, Bill uses only 10 Watts and a Home Brew (home made) ¼ Wave Ground Plane. Also, congrats to Bill on the birth of his first grandchild, "Isaac!"

**K5QBX & KE5TC** – Fred and new member Royce (Keota OK) traveled to Queen Wilhelmina State Park near Mena to operate 'Winter Field Day' from one of the most scenic areas of the Ouachita Mountains in SW Arkansas.

**WAØTDQ** – Hugh enjoyed his 95<sup>th</sup> birthday on Feb 4<sup>th</sup>. Hugh is still active on the air and occasionally attends BVR C Saturday morning breakfast gatherings; the Club's transition to evening meetings have prevented him from attending.

**KI5BMS** – New ham--and new BVR C member-- Steve Snyder lives on Grand Lake of the Cherokees in Grove, and is experimenting with a new Jetstream vertical, along with a 40M Off-Center Fed dipole.

**N5LML** – Randy invites all club members to try "DMR" mode. Randy, BVR C members John/N5SU, Steve/K5SAW and others are using new NWA 'Talk Group 31058' for daily 'ragchew' DMR QSOs with friends.

**WD9AEN** – Our sympathies to Joe, who has been logging hundreds of miles to IL & IN lately, after the death of his Dad in Indianapolis. Joe makes great use of Mobile HF, VHF & UHF. He also attempts to participate in the Club's 3820 Roundtable, using a 75 Meter Hamstick (donated by former old-timer Frank Dee, K5DEE, now in a senior facility in Springdale).

**K5DB** – While not editing *The Signal* or planning 'mobile routes' and participation in upcoming state QSO Parties (AR, MO, KS & OK!), Don is now on "FT-8" mode, thanks to assistance from Mark/K5XH and Paul/KK5II. Don assisted cousin John – W5OX with VE Testing at Alpena High School, resulting in 2 new Techs and 2 General class upgrades from the school club, located just west of Harrison. He'll also be heading down to the Russellville hamfest in March.

**KG5SZQ** – Chris, NCS Coordinator for the weekly BVR C 8pm Wednesday 2 Meter Net, is looking for volunteers for additional net control stations.

**W5KI** – New member Steve Norris (Eureka Springs) has been busy during bouts of warmer weather. He has repaired antennas damaged during high winds, and is now checking-into our 2 Meter and Wide Area Nets. Steve was inactive for several years while caring for his XYL, who became an SK last year. Steve and Ginny were married for 49 years, and were good friends of Ron & Debbie, K5XK / N5WEX.

**W5XNA** – New member Tom Northfell of Fayetteville continues to improve his Morse Code proficiency by participating in the online "CW Academy," two nights per week. Tom is a retired police officer, who now teaches public school in Springdale. Tom is also president of the Hogville ARC.

*(Cont. next page.....)*



**N5SU** – new member John Bryant is home recovering from surgery; John is often our ‘most distant traveler,’ attending BVRC meetings from Elkins, southeast of Fayetteville. John is an example of those who can benefit from the club’s [new Wide Area Net](#). When not serving as a moderator on our Sunday afternoon 75 Meter ‘3820 Roundtable,’ John enjoys FT-8 and “trying new things” within the hobby. John and Ron/K5XK had their first QSO (CW) as Novice licensees as teenagers in 1962!

**K6RLA** – Ken is back on the air after eye surgery, and planning a tower and HF yagi antenna. Ken only needs a QSO with NE Africa to have “WAZ” (Worked all 40 Zones) around the world, and has 225 of the current 340 DXCC Countries/‘entities’ worked.

**AF5YM** – Steve, our most distant member in Newton County, south of the Buffalo River in the Ozark National Forest, enjoys antenna design, Smith Charts, operating from the field, and is rumored to be working on “Part 2” of his May 2018 BVRC program on “EMF.”

**KCØDX** – Congratulations to Ed on achieving his DXCC Award for working and confirming 100 DXCC countries.

**W5KI** – new member Steve Norris (Beaver/Eureka Springs) has been busy during bouts of warmer weather. He has repaired antennas damaged during high winds, and is now checking-into our 2 Meter and Wide Area Nets. Steve was inactive in recent years while caring for his XYL, who became an SK last year. Steve and Ginny were married for 49 years, and good friends of Ron & Debbie, K5XK/N5WEX.

**KEØQFO** – Alan, north of Pea Ridge, has a new dual-band VHF/UHF radio and antenna, and is patiently awaiting warmer WX to get started on his tower project.

**KØDKL** – Dennis and Mary Clare, who split their time in Bella Vista, have been ‘stuck’ in frigid Minnesota during one of the harshest winters on record.

**K5GO** – New member Stan Stockton (Siloam Springs) operated the ARRL DX Contest (CW) in mid-February from Cayman Brac, his Caribbean contest QTH. Stan’s eastern Cayman Islands call is ZF9CW. Stan is a World Class contester and expert antenna designer, and ex-WA5RTG in his teenage years.

**KF5ZIM** – when not overseeing plans for the new “HAM 101” project or making recognition items and customizing BVRC ‘swag/gear’ (name badges, license plates, hitch covers, key tags, etc.), Gregg is putting finishing touches on his new tilt-over tower and antennas. From his Prairie Creek QTH, Gregg can easily reach 6 of Tem/N5KWL’s 7 repeaters in the “NWA Link System” used for our new Wide Area Net. Gregg’s current focus is on EmComm on VHF/UHF and 75 meter ‘phone.’

**AB9YN** – Steve is staying busy coordinating the editing and production of the Club’s new ‘Video project.’ BVRC members will have online access to each month’s presentation, viewed on Cox and U-verse cable, and ‘on-demand’ by purchasing DVDs of previous programs. For more info, or to order a DVD, email Steve [here](#).

***We Need Your News! Tell us of your latest radio endeavor. Studying for a license upgrade? Planning or using a new radio, antenna, or accessory? New operating mode, etc? Send Member News to: [K5XK](#), or Don, [K5DB](#).***

# NEW BVRC CAP NOW AVAILABLE !

Bella Vista Radio Club now has a handsome ham at a very affordable price! We are now taking orders for the first quantity of caps, which should be ready in about 4-6 weeks. You can greet spring with your new cap, and also be ready to proudly display your new topper at Field Day! The cap is quality khaki, comes with the BVRC logo on the front, and your callsign embroidered on the side. \$15 each. Order now!



Order information: Send check for \$15 (sorry, no credit cards or money orders) made-out to "Embroidery Lady", with your name and callsign enclosed to:

**Don Banta - K5DB**

**3407 Diana St.**

**Springdale, AR 72764**

(Any questions, e-mail Don at: [arsk5db@gmail.com](mailto:arsk5db@gmail.com) )



# BUMPS IN THE ROAD

By BILL DURHAM — KG5ZCI



This is a story about the trials my of getting on the air. I passed the Technician test and waited patiently to get the final word from the FCC. In a bit more than a week I am the proud holder of my own call sign. I then upgraded to General and then the big one – Amateur Extra. So now what? Obviously, I needed a rig. FT-8 was my first target. It is not too personal and does not require a microphone or Morse code, and the waterfall display is amazing. A perusal of e-Ham indicates that the ICOM 7300 might be a good choice. I asked a few folks about the choice and they agreed that the performance and price would be hard to beat. I also noticed that there were several You Tube videos about using the ICOM 7300 with FT-8. I placed the order and a few days later the box arrives. After a few days of admiring the box, I set the radio on top of some vintage gear donated to my cause. My “shack” is looking pretty good although nothing works. By this time, I discovered that rigs don’t come with built-in power supplies. Just to keep things simple I also ordered a power supply from the same vendor.

**First step – Turn on the rig AND the power supply.** The light comes on and the screen comes alive. The tuning knob seems safe enough to touch so I give that a few turns. Seems to work but I really need a good antenna. Since the budget took a good hit with the rig, I opt for a 40-meter dipole. I get to work on that project. 35 ft tall on two masts, one near the shack the other about 80 ft away, north to south orientation. I borrowed an antenna analyzer and with no adjustments the antenna is resonant at 7.045 with an SWR well below 1.5 over my frequency range of interest. (Murphy must be sleeping.)

**Second step – Load the software.** This went without a hitch, even though my computer was pushing 10 years old. I also put all the manuals in the computer in the remote chance that I may wish to read one.



**Third step and first bump – See if it actually all works.**

The ICOM 7300 and the latest version of the software at that time only required the USB connection. The computer and the software cooperated, and it seemed like it was working but there was nothing on the waterfall. There were a lot of settings, so I tried my best to set them in some rational order. No luck. (Maybe Murphy was just waiting for a better opportunity.) The next day, it worked. The waterfall display (left photo) was as wonderful as I imagined. I spent the evening just marveling at all the places and call signs. The following day, I was ready to move to next step but there was nothing on the waterfall. (Murphy was definitely having a good time with me.)

I became frustrated to say the least. I asked a few folks and formed a few guesses as to what might be wrong. Then I referred to the software manual. The clock is obviously critical. Armed with this suggestion I passed it around the group and one of them recommended Dimension4. I loaded the program and sure enough the problem was solved. Just to be sure, I tried it for several days with no further incidents.

**Step four and the second bump - Try to answer a CQ.** The FT-8 software is almost completely automated so what could go wrong? After some serious hesitation, I double-clicked on a promising CQ. I waited for a return but nothing. I tried again, nothing and again, nothing and again. I felt like a social outcast. I returned the next evening to see if I could find something wrong. Keep in mind that I am new to the process, and there are lots of buttons on the rig. It's clear that the rig is switching to transmit like it is supposed to do but the drain current is not changing. Further investigation indicates that the power output is zero despite the clicking and lights flashing. I began to wonder, "Is the rig broken?" I call DX Engineering (the vendor for the rig) and speak to the FT-8 "expert". His suggestion is to go to the web and find out what settings everybody else is using. I was not impressed by the response, but he knew enough to tell me how to determine that the transmitter was indeed functional. I could have read the manual.

I took his advice though and looked at three different videos on You Tube. I averaged all of the suggested settings into one set and adjusted the rig accordingly. This did the trick. I was a bit skeptical at first, because in the first video the author admitted to not knowing what the x-axis on the waterfall display meant and his information about the split mode was incorrect (this may be related to the difference in software versions).

OK things were looking good. I double-clicked on a CQ entry and to my surprise I get a return. Unfortunately, Murphy was not done with me. The computer sent the appropriate response then the software locked-up. I tried again and again the computer locked-up. Frustrated again. This time I simply Googled a question that described the problem. I am happy to see that this got a few hits. Most of the responses were vague and more about computers. One, however, told about a similar problem caused by RF in the USB connection. I flipped the USB cable from one side of the rig to the other to put a bit more space between the cable and the antenna coax.



Shortly, I had my first QSO! .....and 10 more that evening! ..... and 20 the next!

The end result has surpassed my expectations. This is a lot of fun, very much like fishing. First you wait for a bite then you hope everything goes well as you reel in the catch.

*(Editor's note: Great story, Bill! This will help many newcomers to the hobby in trouble-shooting FT8 issues. Thanks!)*



# BVRC VIDEO PROJECT UPDATE

**FROM STEVE – AB9YN**



Hello everyone,

The video project is going just as planned and I think the shows look pretty good on the air.

Speaking of "on-the-air", the shows are on cable TV, not satellite. If you have AT&T U-Verse, go to channel 99 and select "Bella Vista TV" then select "full screen".

If you have Cox cable, go to channel 222 and view the program. Keep in mind that you can change the image size on your TV remote to make the image fill the screen.

The program schedule is located on the TV station website: [www.bellavistatv.org](http://www.bellavistatv.org). Our station can be seen from Fayetteville to the MO. border.

The program, called "THE CLUB HOUSE", changes every month (since we have monthly meetings). The same show repeats throughout the month. Times are: Sun at 9pm, Mon. at 10am, and Thurs. at 8pm. So, people can see our show 3 times every week.

In February, we will change the show to a different meeting program. We currently have 3 shows ready to air and the fourth one will be done by next week.

For those without cable TV, the club can be uploaded by the club to the club's YouTube site or the TV station can upload it to the TV station website.

Let me know if the club wants to upload it.

That's all for now, 73 and watch local programming!

# A VISIT WITH N5KWL

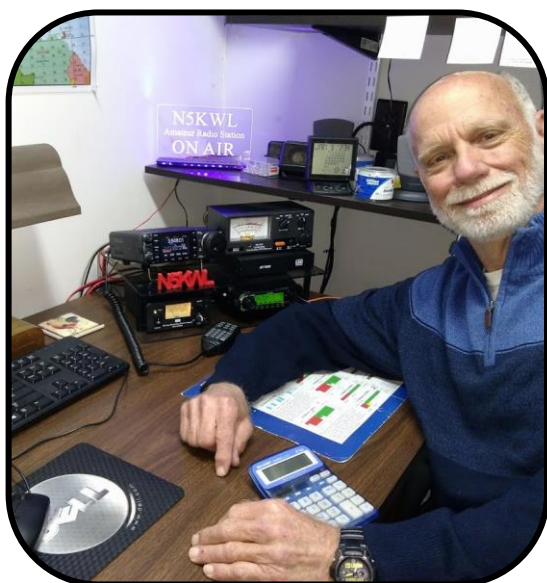
From Ron Evans – K5XK

Recently, BVRC Public Information Director Ron – K5XK traveled to the QTH of Tem Moore – N5KWL. Tem's residence is in a beautiful location, a gorgeous place on Barzel Point on Beaver Lake, SE of Rogers. Tem is one of BVRC's newest members, but he is a veteran ham with his special interest being in VHF/UHF communications. Tem is the owner/custodian of the fabulous N5KWL linked repeater system which consists of 7 repeaters in the NW Arkansas area, and has a huge coverage from Fort Smith to Springfield, MO. Tem has graciously invited BVRC to use the system for the new Wide Area Net at 9pm local time on Wednesday evenings.



Tem gave Ron a tour of the property, which includes his excellent antenna system that is used for his personal HF work, but primarily serves as the antenna for the Beaver Lake repeater in the linked system.

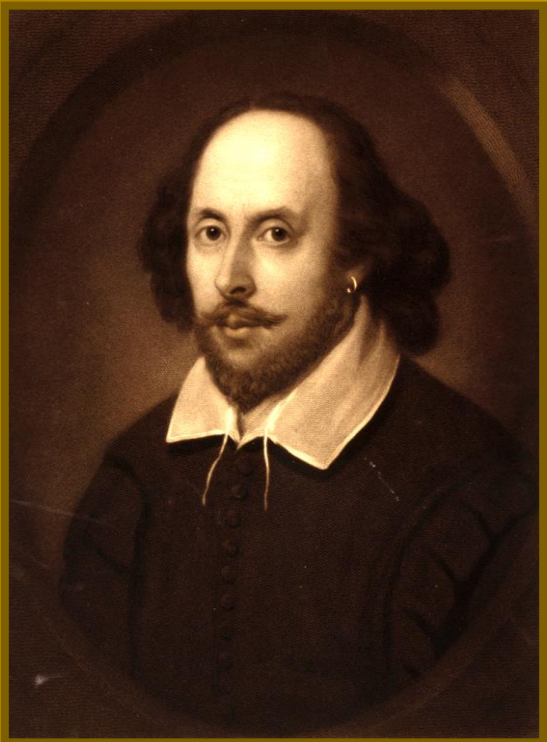
Ron was then given a tour of the N5KWL shack, very impressive. Tem's XYL, Nancy, also holds an amateur license with the callsign N5UFO (for real, hi hi).



After the excellent visit with Tem and for the remainder of the day, Ron said that he and XYL Debbie – N5WEX then engaged in a little road trip thru the Ozarks for lunch at the Oark Café and General Store, Oark, AR. Ever heard of that one? If you haven't, it's way up NNW of Clarksville, in the Ozarks, in northern Johnson County. The route was fun...down the Pig Trail to Cass, then east on Hwy 215 to Oark. They were alongside the Mulberry River much of the way from Cass.

They enjoyed some big, tasty burgers and hot coffee, as they snuggled up to a big wood stove in the middle of the room.





You don't have to write like William "Bill" Shakespeare in order to write an article for *The Signal*. — In fact, we prefer articles without the words "thy", "whilst", "'tis" and "oft".

Working on a new kit or homebrew project? Have you recently received a rare or interesting QSL card to share?

Received a new radio award? Or just have a cool photo (ham radio related) or some comments to share with other club members? Maybe you have acquired a new piece of equipment, or constructed a new antenna?

Taken a trip focused around ham radio to share an amateur radio related experience? Why not write an article for *The Signal*? The article can be short or long, simple or elaborate. Please include pictures! We're always looking for material for the BVRC newsletter and feedback from our readers goes a *long* way toward keeping the newsletter interesting. So why not give it try? Write an article and send it to the newsletter editor, and we'll get it in there! It's fun, and at the same time your contribution helps support BVRC and our hobby! Articles can be submitted electronically or on paper, whichever way you feel most comfortable with. Send pictures, too! As *The Signal* editor, I *particularly* look forward to putting a new issue together when I have material submitted by our club members!!!

Hope to hear from you soon & 73! (Send it in!)

Submit your material to Don, K5DB...e-mail: [arsk5db@gmail.com](mailto:arsk5db@gmail.com)

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